Prepress Preparation, Continued

Stock selection   When you select paper for a particular job, consider the printing process (if printing illustrations) and the purpose of the end product. Line drawings and text reproduce well on any stock, however, heavily laid paper is difficult to print with halftones. The purpose of the job also affects the selection of stock. If the job must be durable, select a good paper; if a job will ultimately be thrown away, select a thin, inexpensive paper stock. Consider the bulk of the stock for large publications and whether it will require a more rigid stock as a cover. A self cover is defined as using the same stock for the cover that you used for the text.

Typography   Typography or type is divided into text type used for solid blocks of text and display type used for display advertising and headings. The design of a style of type is known as typeface and is identified by a name, such as Futura, Bodoni, or Clarendon. Select a typeface appropriate to the mood expressed by the copy. Although less a factor in the selection of body text, a dynamic typeface used in display text can make the difference between a successful and a mediocre product.

Typesetting   Machine set text type ranges from 8 to 14 point. For small blocks of text and cut lines or captions for illustrations, 12-point type is ideal. For general purpose text use a lo-point letter.
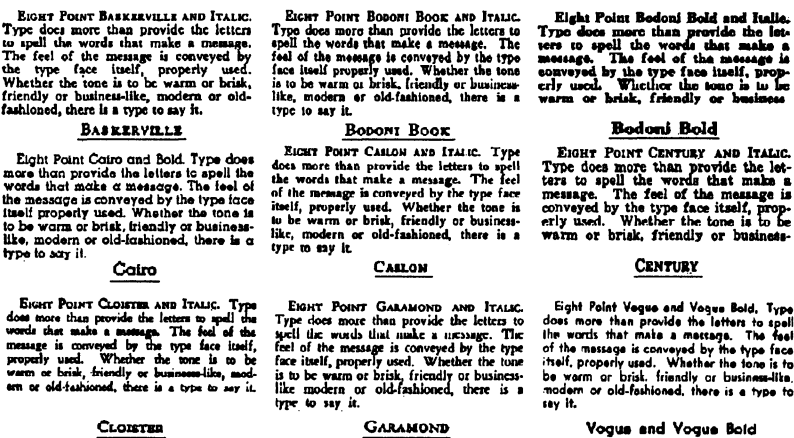
Figure 1-10 shows examples of various typefaces.

Figure 1-10. —A block of text set in various typefaces.

Display type   Display type is letters that draw attention. These typefaces create an illusion as a result of thick and thin lines, curves, and the presence or absence of serifs or embellishments.

Figure 1-11 shows the effects of display type.

Illustrator Draftsman

Illustrator Draftsman

Illustrator Draftsman

𝕴𝖑𝖑𝖚𝖘𝖙𝖗𝖆𝖙𝖔𝖗 𝕯𝖗𝖆𝖋𝖙𝖘𝖒𝖆𝖓

Illustrator Draftsman

Illustrator Draftsman

DMJA0009

Figure 1-11.—Display type.

Legibility	Legibility is your primary concern when selecting typefaces. The factors that contribute to legibility are the style of the letter; the type size; the line length; the spacing between lines, words, and letters; the indentations; and the margins around the print.

Style of the letter	Letter styles denote the overall appearance of a letter. A letter has height, weight, and decoration. Letter height is the vertical height of the letter. Letter weight is how thick (boldface) or thin (lightface or open-faced) a letter appears and whether it is condensed, expanded, or geometrically symmetric. A letter may also have serifs, kerns, and other decorative elements that affect legibility and identify it as a particular style. Simpler letter styles, such as a Roman, Helvetica, or Bookface, have unobtrusive serifs and are easier to read than more ornate styles. Gothic, Stymie, or other letters that are sans serif or have unusual serifs are tiring to read for any length of time. Ornate and decorative typefaces lose impact when used extensively and repel readers when used as body text.

Figure 1-12 shows letters of different decor as body text.

Times New Roman: Type does more than provide the letters to spell the words that make a message.

Geoslab: Type does more than provide the letters to spell the words that make a message.

Letter Gothic: Type does more than provide the letters to spell the words that make a message.

Antique Olive: Type does more than provide the letters to spell the words that make a message.

Coronet: Type does more than provide the letters to spell the words that make a message..

Humanist: Type does more than provide the letters to spell the words that make a message.

Modern: Type does more than provide the letters to spell the words that make a message.

Figure 1-12.—Type styles as text.

Prepress Preparation, Continued

Type size - height

In type size, height is expressed in points. A point is a unit of measurement that approximates one seventy-second of an inch (1/72). There are approximately 72 points to an inch. The size of a typeface is measured by its height in points.

Figure 1-13 shows how point size affects letter height.

POINT SIZE

8   A a B b C c D c E e F f

12   A a B b C c D d E e F f

16   A a B b C c D d E e F f

18   A a B b C c D d E e F f

24   A a B b C c D d E e F f

DMJA0011

Figure 1-13.—Point size and letter height.

Type size - weight	The weight of type may be lightface, open-face, regular weight, or boldface. Additionally, letter dimensions may be condensed, expanded, geometrically symmetric or italicized.

LIGHTFACE: Thin, hairline strokes that give a light, airy illusion to the letter style are characteristic of a lightface letter.

OPEN-FACE: An open-faced letter appears to be an outline of the letter with the center portions left open. Open-faced letters, when left open, appear lighter in weight than when filled in. You may fill in an open-faced letter with a contrasting color or colors for a creative effect.

REGULAR WEIGHT: Neither too thick or too thin, a regular weight letter reproduces at optimum legibility.

BOLDFACE: Boldface letters appear heavy and dense. They add emphasis and seem to jump from the page when used judiciously in body text.

Figure 1-14 shows letter weight. |

DMJA0012
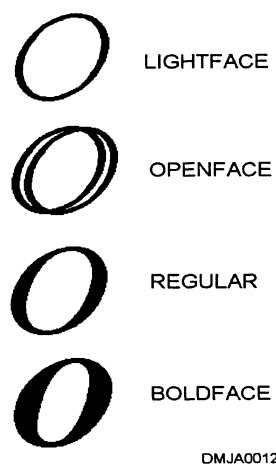
Figure 1-14.—Using the
letter "O" to demonstrate
letter weight.

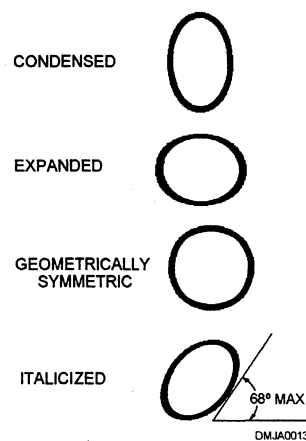# Prepress Preparation, Continued

**Type style -
weight
(Continued)**

CONDENSED: Letters that appear vertically squeezed or pinched are condensed. Condensed letters can give the appearance of being heavier than they really are. Use condensed letters when the length of text exceeds the line space allotted.

EXPANDED: Horizontally stretched or flattened letters are called expanded. They appear lighter in weight than they really are. Used creatively, expanded letters can lengthen a short headline to fill a predetermined space.

GEOMETRICALLY SYMMETRIC: Geometrically symmetric letters have geometrically or mathematically correct dimensions and proportions. To determine if a letter is geometrically proportioned, look at the letter "O" and evaluate any distortions.

ITALICIZED: Italicized letters slant to the left or right of center. Before negatively affecting legibility, a letter can lean a maximum of 68 degrees from center. Italicized letters add emphasis.

Figure 1-15 shows the letter "O" in various typefaces.

CONDENSED

EXPANDED

GEOMETRICALLY
SYMMETRIC

ITALICIZED   68° MAX

DMJA0013

**Figure 1-15.**—Using the letter "O" to demonstrate geometric proportions of various typefaces.

Prepress Preparation, Continued

Line length   The length of a line is measured in picas. Picas are also used to measure the width and length of pages and columns. There are 12 points to a pica and approximately 6 picas to an inch. Do not use points and picas interchangeably as they do not precisely coincide as a unit of measure. Use the point system or a line gauge to specify instructions to a typesetter. Some typesetters prefer specifications in picas only.

Figure 1-16 shows a line gauge or printer's rule.
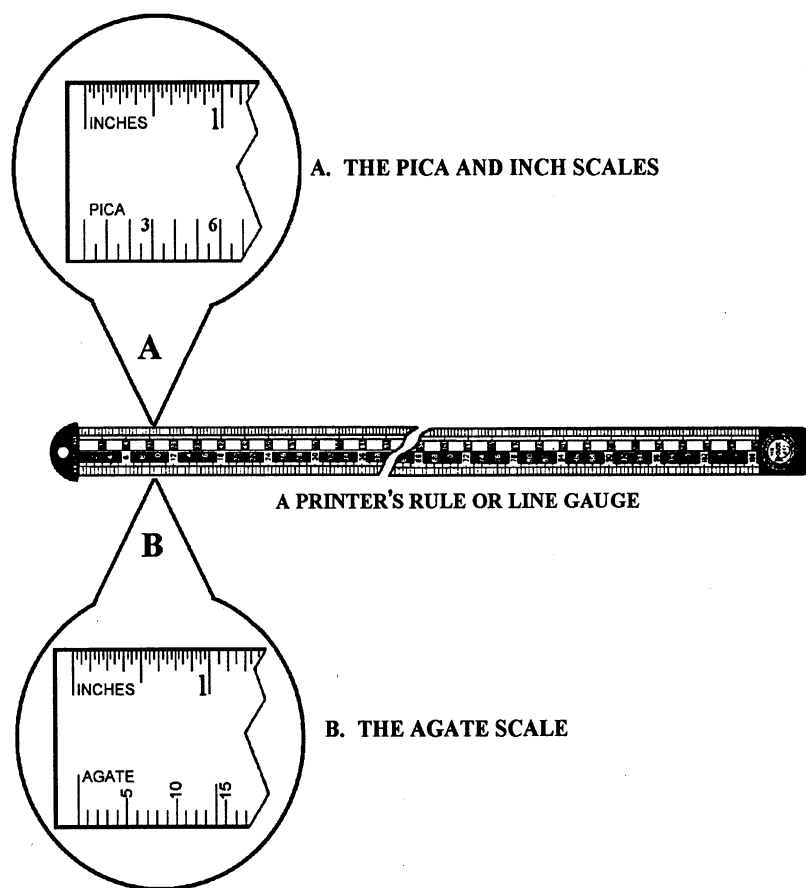
DMJA0014

Figure 1-16. —A printer's rule or line gauge; A. The pica and inch scale, B. The agate and inch scale.

Prepress Preparation, Continued

Spacing

Spacing between letters, words, and lines affect legibility.

LETTERSPACING: Letterspacing is the placement of extra space between the letters of words to improve or balance the type. Divide the spacing evenly between letters and words to maintain visual balance.

WORD SPACING: Word spacing is the adjustment of spaces between words to shorten or extend a line of type. This is often used to justify text. Justification is the alignment of both the right and left margins to a predetermined length. Mechanical word spacing uses an em space. The em space is the standard unit of measure for the typeface being used and equals the square of the body type based on the letter "M". One half of an em space is known as a en space. Too much space in between words causes a disturbing visual break in composition by creating rivers of white space on the printed page.

LINE SPACING: Spacing between the lines of text is called line spacing or leading. Line spacing is the distance in points from the base line of one line of type to the base line of the next line of type. Long lines of text require more spacing between lines. If no additional spacing is used between lines, the text is said to be set solid. Navy publications generally use 2-point leading.

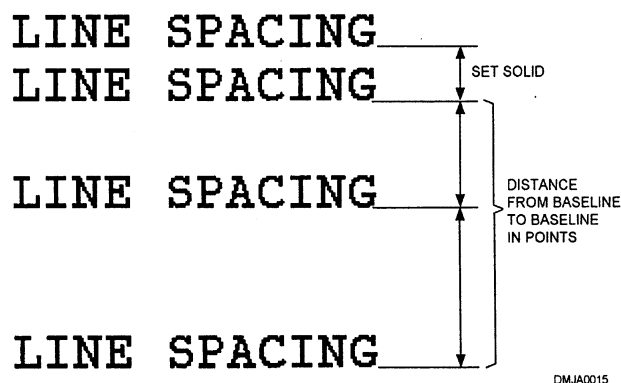Figure 1-17 shows examples of line spacing.

Figure 1-17.—Line spacing.

**Spacing
(Continued)**
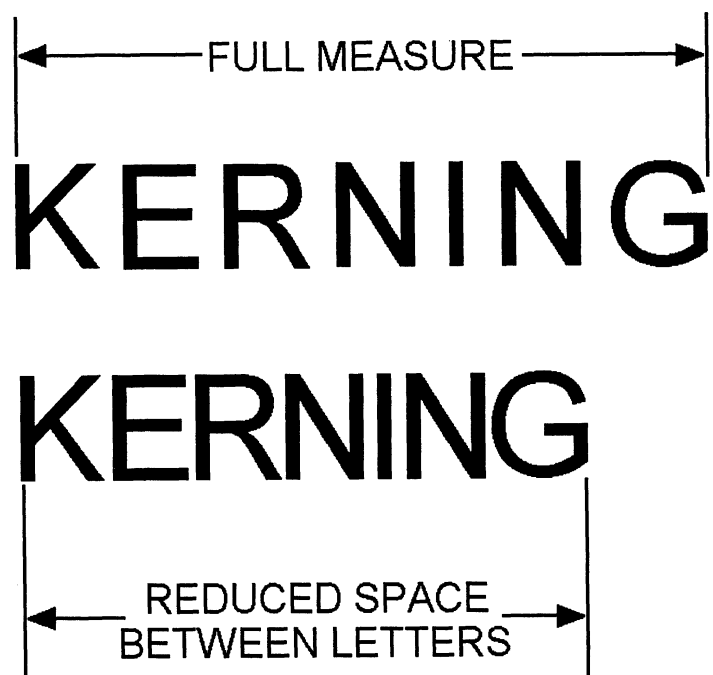
KERNING: Kerning reduces the amount of space between letters or combinations of letters to achieve visual balance. Kerning is the opposite of letter spacing.

Figure 1-18 shows an example of kerning.

DMJA0016

Figure 1-18.—Kerning.

Prepress Preparation, Continued

Indentations   Indentions give emphasis and new starting points to a printed page. Indenting text is the moving of one or more lines of printed or typewritten material in from the margins. Paragraphs, quotations, hanging, stepped or staggered indentations are all used to facilitate communication. Set poetry according to the style set by the author.

PARAGRAPHS: Indent paragraphs to indicate the beginning or end of a complete thought or idea.

LONG QUOTES: Place long quotations or quotations requiring special emphasis in a separate paragraph. They may be set full measure or indented from both margins.

SHORT QUOTES: Bury short quotations in the body of the text.

HANGING INDENTATIONS: The first line of a hanging indentation is set flush left with all other lines set one or more em spaces from the left. This type of indention is used in tabular work, listings, legends, and captions when they exceed two lines.

STEPPED or STAGGERED INDENTATIONS: Progressively stepped or staggered indentations are normally used in newspaper headings and modern layouts with irregular indentations. Some poetry is also staggered or stepped.

Figure 1-19 shows an example of staggered indentation.

The Navy Hymn

Eternal Father, strong to save
    Whose arm doth bind the restless wave,
Who bidds't the mighty ocean deep,
    Its own appointed limits keep;
O hear us when we cry to thee
    For those in peril on the sea.

STAGGERED INDENTATIONS

DMJA0017

**Figure 1-19.**—Staggered indentations.

Margins   Margins act as a frame to keep the readers attention focused on the text. Even margins are monotonous and narrow margins make reading difficult. A well-designed page contains a mass of type pleasingly framed in white space. The margins of a single page layout should have equal left- and right-hand margins with the bottom margin slightly larger than the top margin. When setting opposing pages, the margins that join the pages together, or inner margins, are made narrower than all other margins. When opened, this gutter of white space should equal the width of the extreme left or right margin. The top margin is larger than the outside margins and the largest margin of all is at the bottom of the page.

Figure 1-20 shows the margins of a single page and an opposing page layout.

SINGLE PAGE

OPPOSING PAGES

DMJA0018
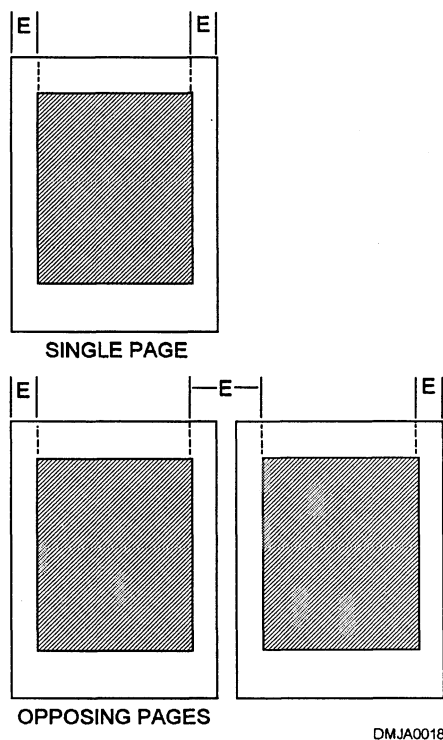
Figure 1-20.—Margins with the dimension "E" denoting equal amounts of space.

Dummies

Introduction
You now have determined the prepress preparation required to proceed to the next phase of the reproduction process. This is the phase of preparing a mock-up, called a dummy, that you paste and bind together in exact reproduction size. Dummies show the areas in publications that illustrations and text occupy. They show the size, the binding, and the paper of the final product. They enable you, your crew, and the originator to visualize the end product, project problems, and settle controversial points while still in the planning stage. Once production begins, dummies also serve as a guide to keep the project on track. Prepare your dummies before the mechanicals. The two types of dummies are the preliminary dummy and the paste-up dummy.
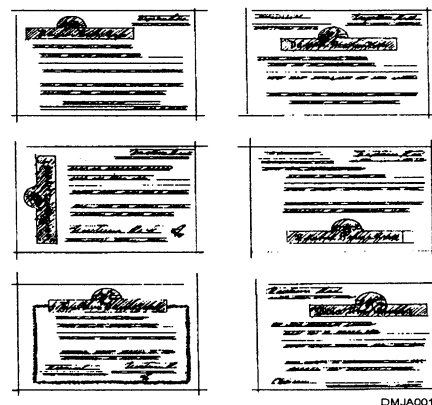
Preliminary dummies
The preliminary dummy should be made up before the publication is typeset.

General construction of preliminary dummies
Start by making thumbnail sketches, building your design around the most important elements on the page. In a preliminary dummy for a lengthy publication, make the layouts for key pages first, such as the cover, the title page, and one or two of the text pages. This should give you an idea about how many pages the publication will take. You may be able to copyfit small publications to determine the number of overall pages.

Figure 1-21 shows a series of thumbnail sketches for a preliminary dummy.

DMJA0019

Figure 1-21.—Thumbnail sketches
for a preliminary dummy.

Cover page   The cover page may have both illustrations and type, hand lettering and type, or type or illustration alone. If the publication is one of a series, the cover should match the others in the series. You may use different colors of stock, but it should have the same characteristics as the other publications. You can use almost any typeface on the cover. Historical content or the mood of the text may influence your choice. If the text consists of more than five or six words, vary the type size to reduce monotony.

Figure 1-22 shows cover pages.

DMJA0020

Figure 1-22.—Cover pages.

Title page   The type used for the title page is usually from the same series or family as the type used for the text unless you need another typeface for distinctiveness. Arrange the type in a pyramid, block, or as fluctuating lines. Set the title in the largest size of type and the other lines in order of importance. The dimensions of the title page are the same as the dimensions for the regular text pages.

Figure 1-23 shows a title page layout.
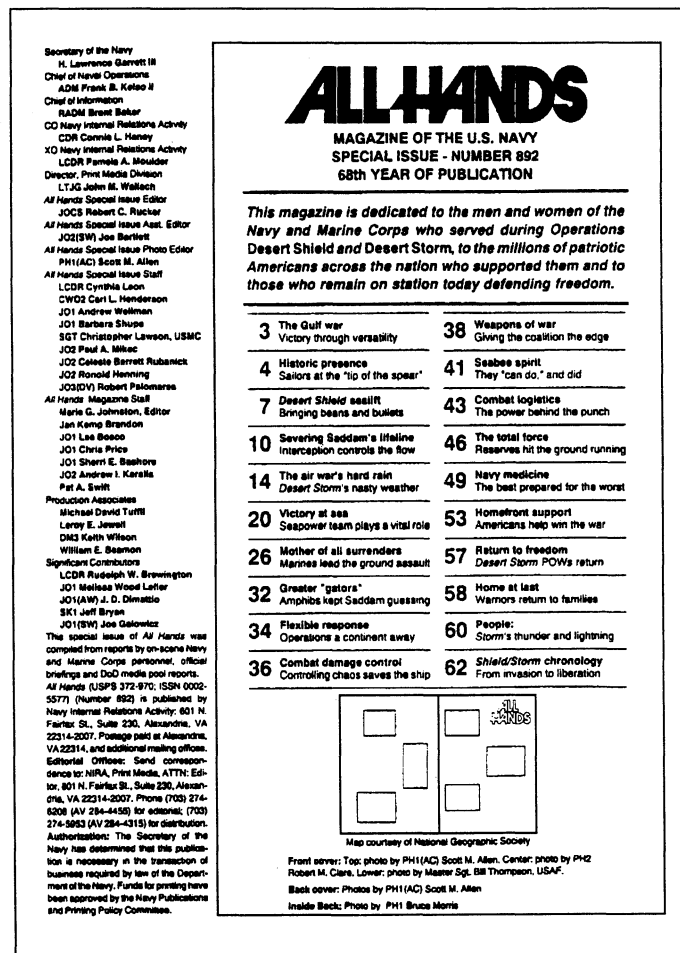
DMJA0021

Figure 1-23.—A title page layout.

Dummies, Continued

|	
Other pages	The principal requirement of the other pages, such as the preface or table of contents, are legibility and attractiveness. When you plan the index, place convenience for the reader ahead of artistic design. Index pages are set in 8-point type with hanging indentations and initials or words set in capitals or boldface type. Divide the index pages into two or three columns.
Text	Indicate areas of text by drawing a rectangle or ruling in a series of lines. Trace or rough-in display text. Cutlines (captions or legends) below the illustrations are text that pertain directly to the image. Set a caption a full column width regardless of the width of the illustration. If a legend consists of one or two lines, center it, otherwise, create a hanging indentation by setting the first line flush left and indenting the following line 1 em.
Illustrations and photographs	Sketch or trace illustrations or draw a rectangle and indicate which illustration or photograph belongs in that area. Place them close to the text to which they apply. If an illustration is narrower than the type or if it does not have a square outline, run four or five lines of type above and below it to square up the page. For extremely narrow art, set the type on a narrow measure and place it beside the illustration.
Single illustrations	Place single illustrations at the top or at the optical center of the page. The optical center is one tenth (page length) above the mathematical center of the page.
Facing pages with illustrations	In book work, consider facing pages as a unit. The right page predominates the left so if you have only one illustration, place it on the right-hand side of the layout. If you have two illustrations, share them between the two pages. Visually balance page layout, either symmetrically or asymmetrically.
Unusual illustrations	One unusual creative technique is a bleed illustration. These illustrations have no margin between the edge of the image and the edge of the page. They appear to bleed right off the page. Use this technique sparingly. Do not bleed every illustration in the publication. If you have several related images, you may group them together as a montage and allow the overall montage to bleed from the page.

Dummies, Continued

Layout examples

Figure 1-24 shows a preliminary dummy with text and illustrations indicated.
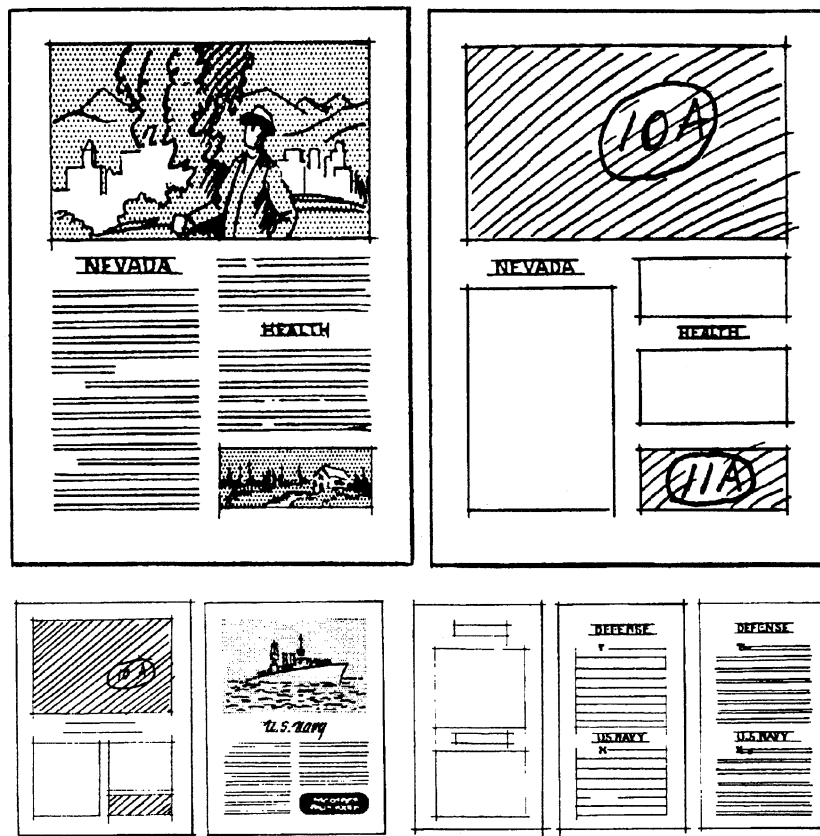
DMJA0022

Figure 1-24.—Text and illustrations on a preliminary dummy.

Dummies, Continued

Layout examples (Continued)

Figure 1-25 shows the position of illustrations or photographs on facing pages.
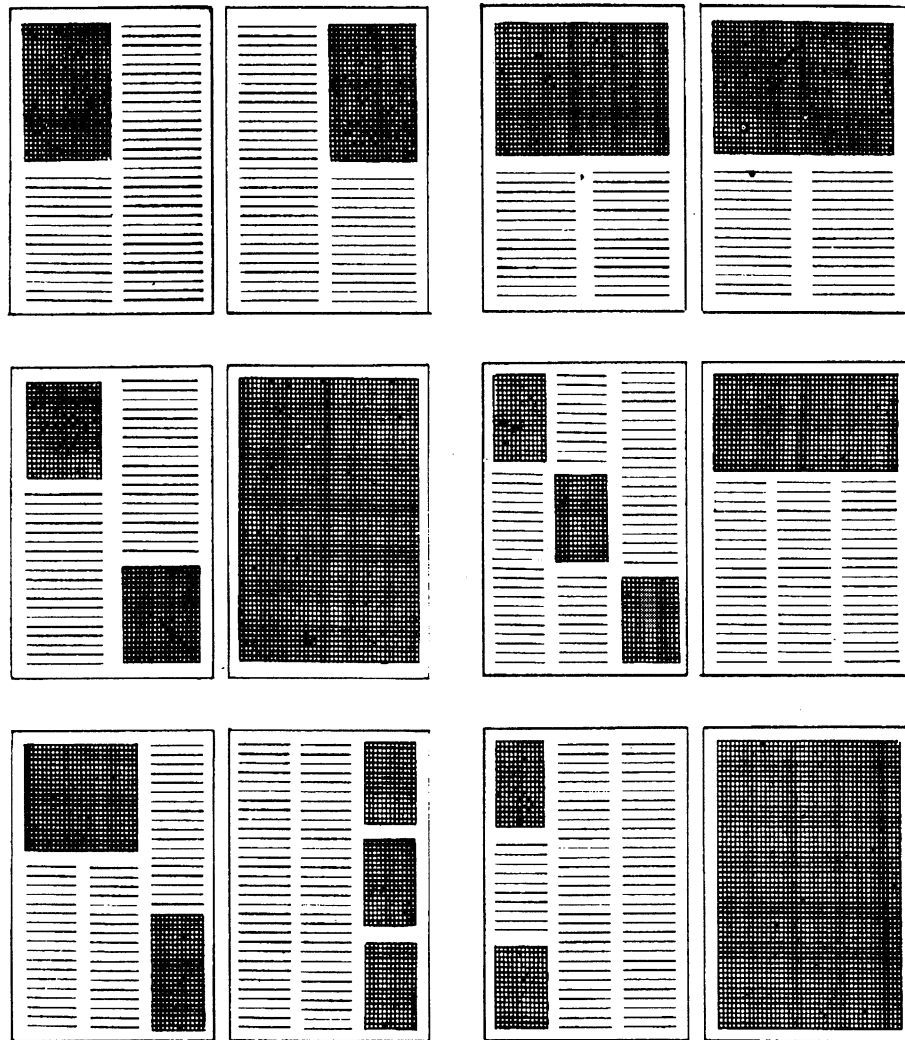
DMJA0023

Figure 1-25.—Positioning illustrations or photos on facing pages.

Dummies, Continued

Layout examples (Continued)

Figure 1-26 shows an additional method of indicating areas for illustrations and text on a preliminary dummy.

A. PREPARED COPY.

B. TWO-PAGE LAYOUT.
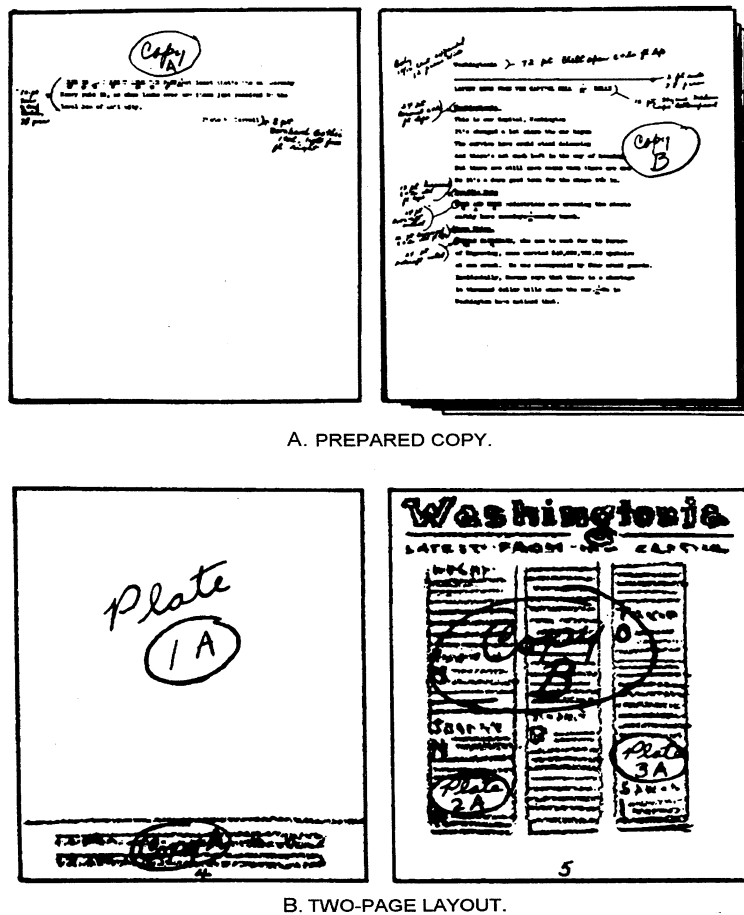
DMJA0024

Figure 1-26.—Another method of indicating areas for illustrations and type on a dummy: A. Prepared copy, B. Two-page layout.

Dummies, Continued

Paste-up dummies

Paste-up dummies are dummies made from proofs pulled after the type is set.

General construction of paste-up dummies

Proofs intended for dummy purposes are run on colored paper. Obtain extra proofs to catch typographical errors. At the top of each proof is a galley number. Mark this number several times throughout each column of typeset print with a heavy lead or grease pencil. By doing this, the printer can tell instantly which gallery the type is in when they make up the pages. Trim the proofs and paste them into place on the layout sheets along with the proofs of illustrations. Use a repositionable adhesive, such as transparent tape or wax. Unfortunately, type does not always measure out the way you would like it to and you will have too much or too little space. Keep several pages laid out in advance to check the fit of the material before you paste them into place.

Figure 1-27 shows preprinted layout sheets with text and illustrations pasted-up.
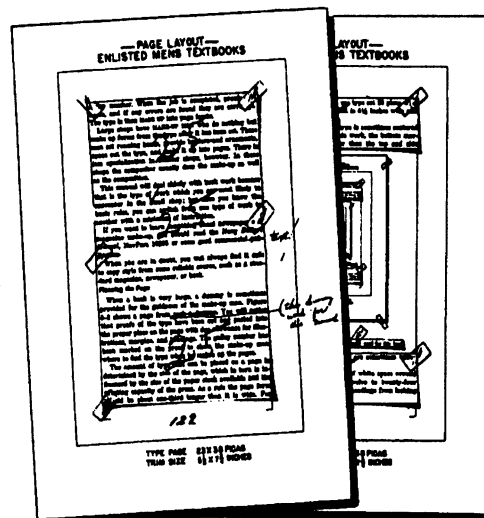
DMJA0025

Figure 1-27.—Preprinted layout sheets
with text and illustration pasted-up.

Copyfitting

Introduction Copyfitting, or copy casting, is the process by which you plan and specify the setting of a given body of text to fit an available space. There are different methods for copy fitting; the two methods for copyfitting covered by this chapter are the character count method and the line measurement method. To begin, use a page of double spaced typewritten text on a sheet of 8 1/2 by 11-inch paper. The left-hand margin and the top margin should measure 1 1/2 inches while the right-hand margin and bottom margin should measure 1 inch.

Character count method To use the character count method of copyfitting, count the number of characters (letters, numerals, punctuation, and spaces) contained in a typewritten manuscript and the number of characters per typeset line length in a chosen size and style of letter to calculate the number of column inches required.

To use the character count method:

Step	Action
1	Count the number of characters on each page of the typed manuscript.
2	Determine the number of characters in one typeset line of determined length in the chosen typeface.
3	Determine the number of lines per inch by ● measuring 1 inch and counting the number of lines, then, ● divide this number into the total number of lines in the typewritten copy to get the length of the copy in inches.
4	Make allowances for headings and illustrations using good judgment and experience.

Copyfitting, Continued

Character count method (Continued)

To determine the number of characters in a typeset line:

Step	Action
1	Find a printed sample composed in the size and type style desired.
2	Measure the length of the desired line in picas from the left margin and draw a vertical line at this point down the right side of the page.
3	Count the characters between the left margin and the drawn line for five representative lines.
4	Divide the total number of characters by five to get an average of characters per line.
5	Divide the total number of characters in the typewritten manuscript by the average number of characters per line of type. The result is the number of lines the copy will fill.

Copyfitting, Continued

Character count method (Continued)

Figure 1-28 shows the character count method of copy casting.

ESTIMATING THE NUMBER OF MANUSCRIPT CHARACTERS

To determine the number of characters in the manuscript, you must count every character and space on each page. If the typewritten lines are fairly even in length, you may use the following system for making computations:

1. Draw a light pencil line down the right side of the copy at a point where the majority of the lines seem to end.

2. Count the number of characters (and spaces) between the left margin and the line. This will give you the number of characters to the average line.

3. Multiply this number by the number of lines on the page.

4. You will notice that some lines run over the pencil mark and some lines stop short of it. Proper allowance must be made for these long and short lines. Go back and count the number of characters (and spaces) that run over on the right side of the pencil mark. Add these to your total in step 3.

5. Then count the number of spaces that some lines are short of the pencil line and subtract this number from the total in step 4. The adjusted total will be the number of characters on the page. (Note.--Some layout men omit steps 4 and 5 unless very accurate calculations are required.)

6. Following this procedure, find the number of characters for each page in the manuscript and add them together. The sum will be the total number of characters (and spaces) in the manuscript.

$$\frac{\text{TOTAL NUMBER OF CHARACTERS IN MANUSCRIPT}}{\text{AVERAGE NUMBER OF CHARACTERS PER LINE}} = \text{LINES COPY WILL FILL}$$

Figure 1-28.—The character count method of copy casting.

Copyfitting, Continued

**Line
measurement
method**

The line measurement method is another process for measuring copy to fit into a predetermined space.

To use the line measurement method, use this table:

Step	Action
1	Measure a distance from the left margin of the copy and draw a line down the right side of the paper.
2	Multiply the distance from the left margin to the drawn line by: ● 10 (pica; 10 elements per inch) or ● 12 (elite; 12 elements per inch)
3	Measure the depth of the copy by multiplying page length by: ● 6 (single spaced copy) or ● 3 (double spaced copy)
4	Multiply the number of lines by the number of characters per average line to find the number of characters on the page.
5	Add this number to the number of characters in the long lines that run beyond the drawn line on the right of the page.
6	Subtract the number of characters required to fill short lines. The result is the total character count for the page.

Scaling Artwork

Introduction   Not all mechanicals are comprised of text only. You must know how to proportionally scale art and photographs to fit into a predetermined space. Scaling is calculating the dimensions for a reduction or enlargement of a given image. You can use a slide rule, a mathematical formula, the diagonal line method, or a scaling wheel to scale artwork. This segment will cover the most common and easily available methods, the diagonal line method and the scaling wheel which is often called a proportional scale.

Diagonal line   The diagonal line method reduces or enlarges the size of the original artwork or the size of the allotted space in the paste-up or mechanical.

To use the diagonal line method, use this table:

Step	Action
1	Cover the allotted space on the mechanical with tracing paper or an overlay.
2	Using a straightedge and a pencil, draw the outline of the allotted space on the paper.
3	Extend the left-hand vertical line and the lower horizontal line.
4	Using a triangle, draw a line from the lower left-hand corner through the upper right-hand corner of the outline.
5	Place the overlay on top of your original artwork aligning the left side and the bottom.
6	Determine whether the height or width is most important for your image.
7	Mark the line corresponding to your selection of the most important dimension and extend this line to the diagonal.
8	Using your straightedge, draw a line from where the last line intersected the diagonal to complete the box or rectangle.

Scaling Artwork, Continued

Proportional scale

The proportional scale is a tool that calculates the new dimension of a piece of scaled artwork and the percentage of reduction or enlargement. It is composed of two disks joined at the center with a fastener that allows the disks to rotate. The disks are approximately 6 inches in diameter and made of a white laminate lettered in black.

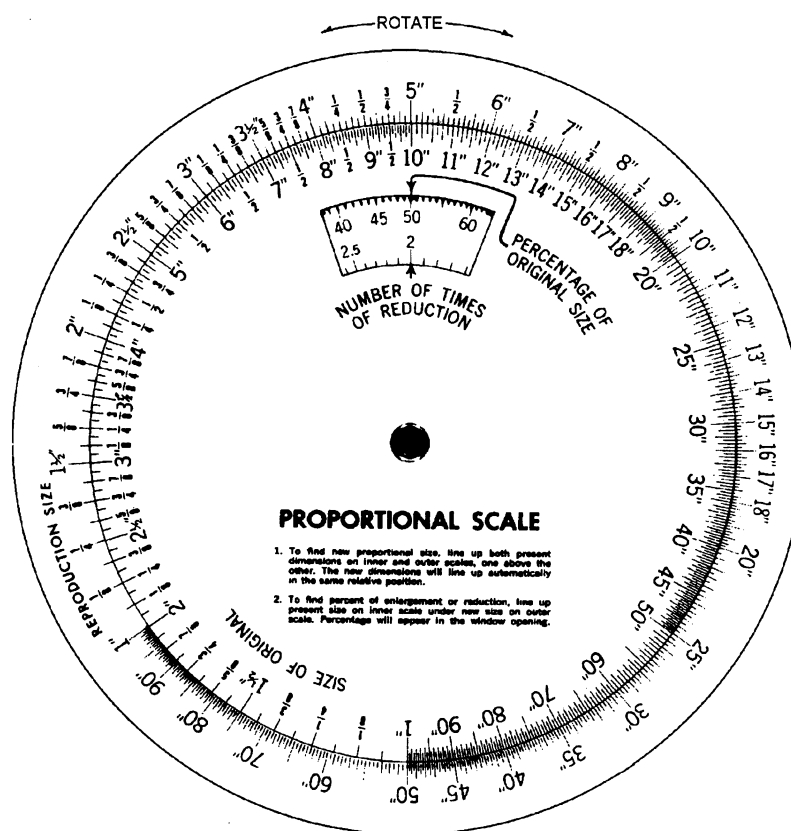Figure 1-29 shows a proportional scale.

Figure 1-29.—A proportional scale.

Scaling Artwork, Continued

Use

To use a proportional scale for reduction, use this table:

Step	Action
1	Measure the dimensions of the allotted space.
2	Measure the dimensions of the original artwork.
3	Rotating the scale, align the dimension representing width of the original artwork across from the dimension representing the allotted width.
4	Without moving the scale, read the dimension located directly across from the dimension for height on the original artwork. This is the proportional height of the allotted dimension.
5	A small window toward the center of the scale will give you the ratios of the percentage of the original size and the number of times the artwork is reduced.

To use a proportional scale for enlargements, use this table:

Step	Action
1	Measure the dimensions of the allotted space.
2	Measure the dimensions of the original artwork.
3	Using the measurements on the scale inversely, rotate the scale to align the dimension representing the width of the original artwork with the dimension representing the width of the allotted space.
4	Without moving the scale, read the dimension located directly across from the dimension for height on the original artwork. This is the proportional height of the allotted dimension.
5	The small window toward the center of the scale will give you the percentage of enlargement of the original artwork but, will not give you the number of times enlarged.

# Scaling Artwork, Continued

Uniformity   When you prepare a series of illustrations for a publication, draw them all to the same scale, if possible. This will save you time at the camera, in the darkroom, and in preparing the mechanical paste-up. This will also improve the overall appearance of the product. Carefully plan artwork that contain text to assure a uniform size of the text in the finished product.

Limitations   There are limitations on the amount of reduction or enlargement a piece of artwork can endure. Prepare your line copy for same size or smaller reproduction. In general, make your artwork a maximum of two times larger or a minimum of one and one-half times larger than the desired size, or at another scale in between the two, as long as it remains proportionally correct. This technique minimizes irregularities and makes the drawing appear more finished. Artwork drawn very large and extensively reduced will begin to fill in detail and appear dark and heavy. Artwork drawn small and enlarged will appear crude and rough because defects tend to magnify. Before beginning a drawing for reproduction, remember that both the lines and the spaces between the lines are reduced or enlarged.

Figure 1-30 shows the effects of enlargement and reduction on artwork.
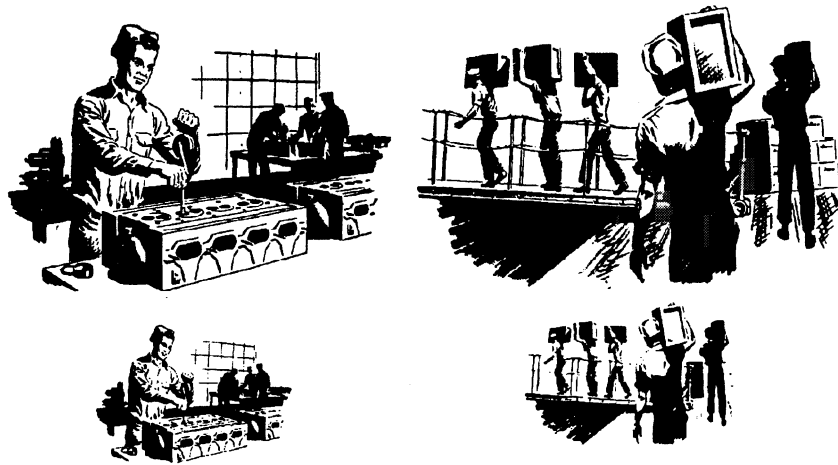
DMJA0028

Figure 1-30.—Reduction and enlargement will lose detail and
magnify defects in reproduced artwork.

Mechanical Preparation

Introduction

The printing process largely determines the quality of reproduction; however, the best machinery available cannot hide the flaws in a poorly constructed mechanical. It is through the mechanical that the DM exerts a direct influence on the resulting print, both in quality and cost.
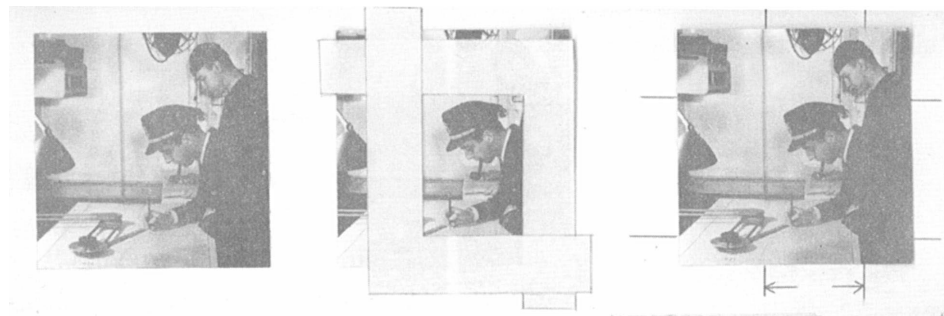
Preparation

Before you begin creating artwork for reproduction, you must gather your materials and information. Determine the press operation involved and the materials to do the job. Settle on a format, finished stock, and type style. If the originator provides artwork, it may require cropping, retouching, eliminating background clutter, or halftone screening. If you must copyfit or scale artwork, do so before you commit yourself to paper.

Cropping

Sometimes you use only a specific portion of the original artwork in a finished product. Cropping is the procedure of defining the desired reproduction image area within a larger piece of work. A simple method of cropping uses two right angles cut from opaque paper or board. By maneuvering the two pieces of angled paper, you can frame the desired subject in many different ways. You indicate crop marks on a drawing or photograph by lightly marking the borders of the artwork or print, by marking an overlay attached to the artwork or print, or by cutting a window in an opaque masking paper, such as goldenrod, to expose the desired portion of the artwork or print. Use a grease pencil if you mark on the borders of original artwork so it can be easily removed. Do not mark more than one set of crop marks on the same artwork.

Figure 1-31 illustrates the use of cropping arms.


Figure 1-31.—Cropping arms.

Retouching Photographs are rarely used for reproduction without some work being done to them to highlight important features or to suppress undesirable characteristics. You may eliminate minor flaws in a photograph by using a photo retouch pencil or opaque retouch greys applied by brush or airbrush. Handle a photograph carefully and avoid leaving fingerprints on the photo surface during preparation. Your natural oils will prevent the paint from adhering. The surface of a photograph has a slick resin coating which you must lightly abrade with Fuller's Earth, a fine, white powder, before you begin retouching. Paint the light values first, then the middle values. Paint the dark values last.

RETOUCH PENCILS: Retouch pencils are available in various shades of grey and color. Avoid digging into the surface of the photograph. Use a slow, fine, circular motion to match the values in the image and spray the finished print lightly with a fixative.

RETOUCH GREYS (cake form): Retouch greys are a series of opaque greys plus black and white in a premixed cake. Wherever you use white, use it pure or it will reproduce as a light grey. Spray the retouched print with a fixative.

RETOUCH GREYS OR COLOR (liquid form): Apply liquid form retouch greys or colors with an airbrush. Extremely detailed or extensive retouching is possible.

Figure 1-32 shows retouch greys in cake form.

STANDARD RETOUCHING KIT   RETOUCHING KIT CONTAINING
                                 MATTE AND GLOSSY GRAYS
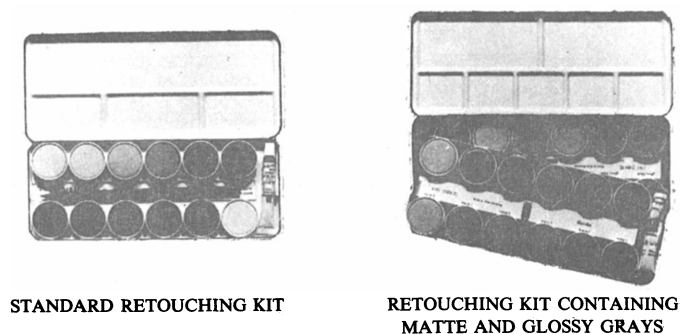
Figure 1-32. —Retouch greys.

Mechanical Preparation, Continued

Silhouetting or vignetting

Silhouette an object if you need to reproduce a subject in outline form. This process partially obscures or completely eliminates background clutter. Vignetting is a process of softening a background with a burned-edge effect. You may use either a photograph or a halftone. If you must preserve the original print, cover it with a clear acetate overlay in tight registration.

To silhouette an object, follow this table:

Step	Action
1	Clean the surface of the photograph with Fuller's Earth.
2	Carefully outline the desired object with a 1/4-inch width margin of opaque white. Apply thin coats. Do not cake on the opaque white as it tends to chip and flake when dry.
3	Indicate to the printer the removal of all background material outside of the white border.

To brush or airbrush a silhouette, follow this table:

| Step	Action
1	Clean the surface of the photograph with Fuller's Earth.
2	Apply a stencil or mask to protect the areas of the image you wish to retain.
3	Apply an even coat of pigment over the undesired area.
4	Allow to dry.
5	Remove the frisket or mask.
6	Use a small cotton wad to remove excess pigment seepage and to soften the edges of the outline to make it look more natural.

Continued on next page

Mechanical Preparation, Continued

Silhouetting and vignetting (Continued)

Figure 1-33 illustrates the procedure for silhouetting.

SILHOUETTED HALFTONE
OF SUBJECT

PHOTOGRAPHIC PRINT

SUBJECT SILHOUETTED
WITH WHITE OPAQUE
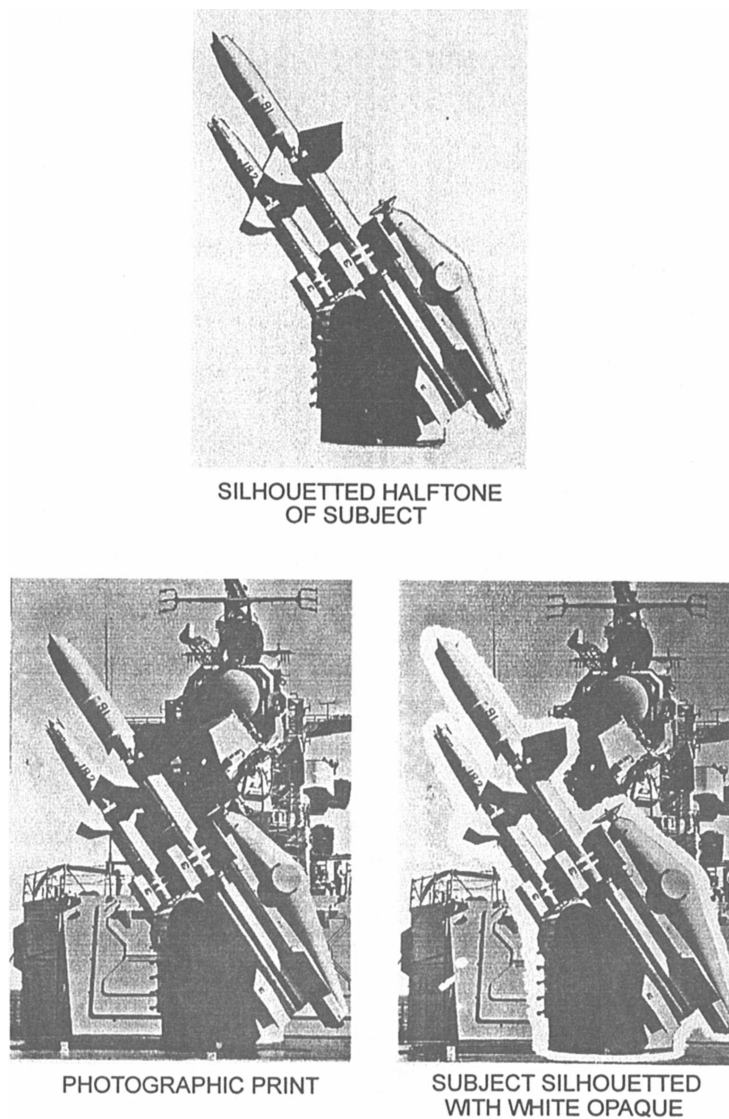
Figure 1-33. —Silhouetting procedure.

Mechanical Preparation, Continued

Silhouetting or vignetting (Continued)

Figure 1-34 shows the removal of background objects by eliminating the background with opaque pigment.
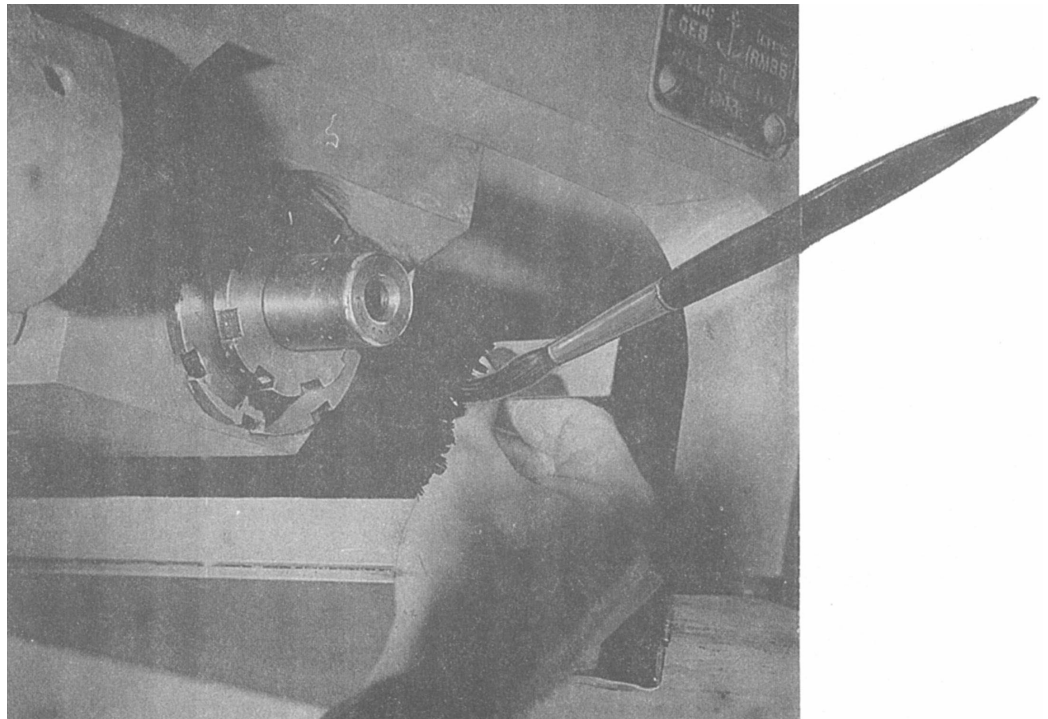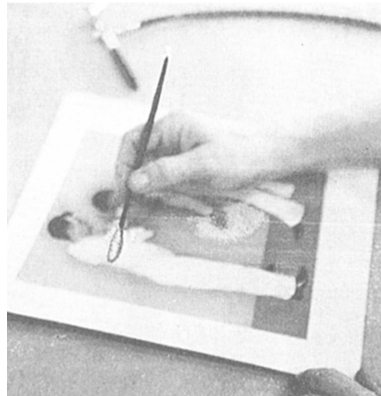

Figure 1-34.—Removing background objects.

Mechanical Preparation, Continued

Silhouetting and vignetting (Continued) Figure 1-35 shows the process of removing excess paint with a moist cotton swab and feathering hard edges left by the silhouetting process to create a more natural appearance.

Figure 1-35.—Removing excess paint with moist cotton.

To vignette an object, follow this table:

| Step	Action
1	Prepare the surface of the photograph with Fuller's Earth.
2	Apply a frisket or mask to protect the areas of the image to remain unaffected.
3	Airbrush pigment onto the photograph beginning with the four corners using a light, airy, circular motion.
4	Continue to rotate the photograph, spraying the four corners one by one, until the pigment covers the amount of the photograph desired. Strive to keep the coverage even.
5	Allow to dry.
6	Remove the frisket or mask.
7	Clean the desired image area of seepage and soften the edges around the image to give a more natural effect.

Mechanical Preparation, Continued

**Silhouetting
and vignetting
(Continued)**

Figure 1-36 illustrates the vignetting process.
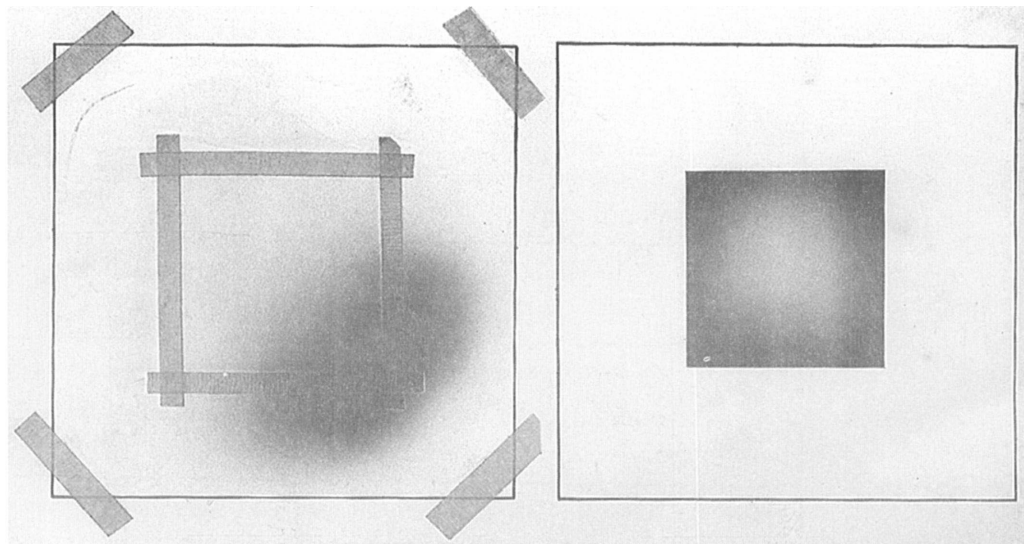
Figure 1-36.—The vignetting process.

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